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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,560	01/23/2004	Tadeusz Kryszczynski	213408.00014	3193

27160 7590 10/24/2006

PATENT ADMINISTRATOR
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EXAMINER

PUNNOOSE, ROY M

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

611

Office Action Summary	Application No.	Applicant(s)	
	10/762,560	KRYSZCZYNSKI ET AL.	
	Examiner	Art Unit	
	Roy M. Punnoose	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,10,11 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 3,6-9 and 12-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Supplemental Non-Final Action

1. In response to the applicant's informal query with regard to the well-known statement, the Examiner wish to point out that the well-known statement was included to cover the "commonly known" statement of numbered paragraph 10 of the previous office action. The Examiner regrets that identical terminology was not used. The Examiner has withdrawn the rejection of the previous office action and has replaced it with this current office action.

Claim Objections

2. Claim 1 is objected to for the following reason:

Section 1 a. refers to "a spectrum disperser" (see line 6). Section 1 b. also refers to "a spectrum disperser" (see line 7). Are these two different spectrum dispersers?

Appropriate correction is required.

Note: For examination purposes, it is assumed that the applicant is referring to the same disperser.

3. Claims 19 and 20 are objected to because both claims depends on claim 1, but they repeat the features claimed in claim 1. Essentially, claims 19 and 20 duplicates what is already claimed in claim 1. Appropriate correction is required.

4. In claim 1, clarification is requested with regard to "plane grating". Is it "plane grating" or "plain grating"?

Drawings

5. The drawings are objected to because none of the features/details are visible in Figure 6. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office

action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 1 recites the limitation "the first lens" in line 15. There is insufficient antecedent basis for this limitation in the claim. There is no prior reference of a first lens in the claim. Appropriate correction is required.

8. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 is rejected because "performance enhancing element" is a very subjective

limitation because it is a limitation that cannot be quantified. For the above reason, claim 5 has not been treated on its merits.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 2, 4, 10-11 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martens (US_5,297,555) in view of Manabe (US_4,950,077).

11. Claim 1 is rejected because:

A. Martens teaches of an apparatus (see Figure) comprising a diffraction grating 23, comprising a radiation collecting and delivery elements 18, 22, adapted to collect radiation from one or more sources 16 of electromagnetic radiation and to deliver a spatial distribution of the radiation to a spectrum disperser 23; a transmission spectrum disperser 23 coupled to said radiation collecting 18 and delivery 22 elements for transmitting radiation, the spectrum disperser 23 comprising an entry port 19, and a collimating lens 21 for transforming divergent beams of polychromatic radiation emerging from the entry port 19 into collimated polychromatic beams, and a transmission diffraction grating 23 for transforming the collimated polychromatic beam from the first lens into a fan of collimated monochromatic beams, and a focusing objective 22 to transform collimated monochromatic beam in each fan into a separate spot of radiation of a flat spectral image and a photodetector array 12 placed in the plane of the flat spectral

Art Unit: 2877

image for collecting radiation transmitted by the spectrum disperser 23 and convert said radiation transmitted by the spectrum disperser 23 into an electric signal (see col.3, line 11 – col.4, line 40), said apparatus for analyzing the spectral composition of a sample under test.

- B. However, Martens does not teach of a multi-channel apparatus for collecting radiation simultaneously from a plurality of points of one or more sources and deliver a spatial distribution of the radiation to a spectrum disperser in an apparatus for analyzing the spectral composition of a sample under test.
- C. Manabe teaches of a multi-channel apparatus (see Figure 5) for collecting radiation simultaneously from a plurality of points of one or more sources 8 and deliver a spatial distribution of the radiation to a spectrum disperser 2 (see col.2, line 50 – col.3, line 62) in an apparatus for analyzing the spectral composition of a sample under test.
- D. In view of Manabe's teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Manabe's teachings into Marten's apparatus due to the fact that such a combination would provide an apparatus that can provide simultaneous analysis of spectral composition of different points of a sample under test.

12. Claim 2 is rejected for the same reasons of rejection of claim 1 above and because in view of Marten's teaching of analyzing reflected light in the visible range, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a wavelength range of 400 nm to 2500 nm for analyzing the sample, because it is well-known in the art that

Art Unit: 2877

400 nm to 2500 nm wavelength range represents the visible light and IR, and Marten uses at least the visible light range.

13. Claim 4 is rejected for the same reasons of rejection of claim 1 above and because Manabe teaches the radiation collection and delivery elements comprise a plurality of fiber optic radiation guides 19-1, 19-2, ... 19-n, for transmitting collected radiation (see Figure 5).

14. Claims 10 and 11 are rejected for the same reasons of rejection of claim 1 above and because using multiple lenses and using a combination of thick and thin lenses for focusing light are well-known in the art, and therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate using multiple lenses and using a combination of thick and thin lenses for focusing light into Marten's apparatus due to the fact that such a combination would provide more flexibility in focusing of light while reducing any chromatic aberration and can provide simultaneous analysis of spectral composition of different points of a sample under test.

15. Claim 18 is rejected for the same reasons of rejection of claim 1 above and because Martens teaches that the photodetector array 12 is positioned within the analyzer 11 (see col.3, lines 10-19) to perform simultaneous registration of spectral composition of radiation emerging from every point of a slit 20 (see col.3, line 11 – col.4, line 40).

16. Claims 19 and 20 are rejected for the same reasons of rejection of claim 1 above because the features claimed in claims 19 and 20 are duplicates of features claimed in claim 1.

Art Unit: 2877

Allowable Subject Matter

17. Claims 3, 6-9 and 12-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, or if the base claim is amended to overcome the rejection.

18. Claims 3, 6-9 and 12-17 would be allowable because the prior art of record, taken alone or in combination, fails to disclose or render obvious the features/limitations claimed, in combination with the rest of the limitations of their respective parent claims.

Contact/Status Information

19. The prior art cited in the accompanying PTO-892 is made of record and not relied upon, **is considered pertinent** to applicant's disclosure.

20. Several facts have been relied upon from the personal knowledge of the examiner about which the examiner took Official Notice in this office action. Applicant must seasonably challenge well known statements and statements based on personal knowledge when they are made. In re Selmi, 156 F.2d 96, 70 USPQ 197 (CCPA 1946); In re Fischer, 125 F.2d 725, 52 USPQ 473 (CCPA 1942). See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice). If applicant does not seasonably traverse the well-known statement during examination, then the object of the well known statement is taken to be admitted prior art. In re Chevenard, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged with rebutting the well-

Art Unit: 2877

known statement in the **next reply** after the Office action in which the well known statement was made.

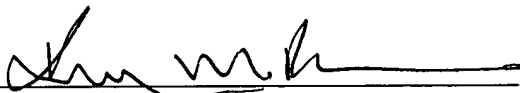
21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Roy M. Punnoose** whose telephone number is **571-272-2427**.

The examiner can normally be reached on 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Gregory J. Toatley, Jr.** can be reached on **571-272-2800 ext.77**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 20, 2006


Roy M. Punnoose
Patent Examiner
Art Unit 2877